

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 4 of 28

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (CURRENTLY AMENDED) An image-processing apparatus comprising:
a storing section having a storing area for storing image data that has been compressed and divided; and
an image-processing control section which combines and decompresses stored image data in the storing section, and then carries out an image processing on the image data, and which again stores the processed image data that has been compressed and divided in the storing section, the image-processing control section having a judgment section which makes a judgment as to whether or not an empty storing area in the storing section is sufficient in storing the processed image data,
wherein upon a judgment by the judgment section showing that the empty storing area is insufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as to allow allowing the processed image data to be stored in storing areas including the storing areas in which the stored image data was originally stored.

2. (CURRENTLY AMENDED) The image-processing apparatus as defined in claim 1, wherein:

the storing area is constituted by a plurality of blocks, each storing one divided portion of image data, and

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 5 of 28

when if the judgment by the judgment section shows that the empty storing area is sufficient, the image-processing control section controls the storage of the processed image data so as to preferentially use preferentially uses an empty storing area consisting of continuous blocks so as to store the processed image data.

3. (ORIGINAL) An image-processing apparatus comprising:

a storing section having a storing area for storing image data that has been compressed and divided; and

an image-processing control section which carries out a pre-processing on image data, compresses and divides the image data, and then stores the resulting image data in the storing section as stored image data, which combines and decompresses the stored image data, and then carries out an image processing on the image data, and which again stores the processed image data that has been compressed and divided in the storing section, the image processing including a combining process for main image data and sub image data of the image data, the pre-processing including a process for adding to the main image data a blank section to which the sub image data is inserted.

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 6 of 28

4. (CURRENTLY AMENDED) An image-processing apparatus comprising:

a storing section having a storing area for storing image data that has been compressed and divided; and

an image-processing control section which combines and decompresses stored image data stored in the storing section, and then carries out an image processing on the image data, and which again stores the processed image data that has been compressed and divided in the storing section, the image-processing control section having a judgment section which makes a judgment as to whether or not an empty storing area in the storing section is sufficient in storing the processed image data, wherein based upon the judgment by the judgment section, the image-processing control section controls the storage of the processed image data so as to allow allowing the processed image data to be stored in storing areas in which the stored image data was originally stored including the storing section.

5. (CURRENTLY AMENDED) The image-processing apparatus as defined in claim 4, wherein,

when if the judgment by the judgment section shows that the empty storing area is insufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as to allow allows the processed image data to be stored in the storing areas in which the stored image data was originally stored.

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 7 of 28

6. (CURRENTLY AMENDED) The image-processing apparatus as defined in claim 4, wherein:

_____ the storing area is constituted by a plurality of blocks, each storing one divided portion of image data, and

_____ when if the judgment by the judgment section shows that the empty storing area is sufficient, the image-processing control section controls the storage of the processed image data so as to preferentially use preferentially uses an empty storing area consisting of continuous blocks so as to store the processed image data.

7. (CURRENTLY AMENDED) An image-processing apparatus, which comprises an image-processing means for carrying out an image processing on image data, which compresses and divides the image data so as to be stored in a storing means in a divided manner, and which combines the group of the divided and compressed image data thus stored, and decompresses and restores them so as to be outputted, comprising:

 a storing area managing means for managing a storing area of the storing means, the storing area managing means being designed so that, when, after the group of the divided and compressed image data, which were divided and temporarily stored in the storing means, have been restored and subjected to the image processing, the resulting data is again compressed and divided so as to be stored in the storing means; a storing area used by the group of the divided and compressed image data prior to the image processing is also used.

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 8 of 28

a judgment means for making a judgment as to whether or not one or more empty storing areas in the storing means are sufficient for storing the group of divided and compressed image data after the image processing; and

wherein, when the judgment means shows that the empty storing areas are insufficient for storing the group of divided and compressed image data, the storing area managing means is designed so as to utilize a storing area used by the group of the divided and compressed image data prior to the image processing so as to store the group of the divided and compressed image data after the image processing.

8. (CANCEL)

9. (CURRENTLY AMENDED) The image-processing apparatus as defined in claim 8
claim 7, wherein, upon showing that the one or more empty storing areas are sufficient for storing the group of the divided and compressed image data after the image processing in the empty storing areas, the storing area managing means preferentially carries out a storing process in a portion having continuous sections each corresponding to one divisional portion of the compressed image data.

10. (ORIGINAL) An image-processing apparatus, which comprises an image-processing means for carrying out an image processing on image data, which compresses and divides the image data so as to be stored in a storing means in a divided manner, and which combines the group

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 9 of 28

of the divided and compressed image data thus stored, and decompresses and restores them so as to be outputted, comprising:

a pre-processing means which, upon having an instruction for an image-processing involving an image combining process including a center binding edition and an edition for collecting images corresponding to a plurality of pages into one page, carries out a pre-processing for allowing image data of an image forming a subject for the combining process to preliminarily possess a blank section to which the image to be combined is inserted, prior to the inputted image data is compressed, divided and stored in the storing means.

11. (CURRENTLY ADDED) The image-processing apparatus as defined in claim 2, wherein the judgment section:

identifies contiguous blocks of the empty storing area, determines if the contiguous blocks are sufficient for storing the processed image data, and upon a determination by the judgment section that the contiguous blocks are sufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as to preferentially allow the processed image data to be stored in the contiguous blocks.

12. (CURRENTLY ADDED) The image-processing apparatus as defined in claim 6, wherein the judgment section:

identifies contiguous blocks of the empty storing area,

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 10 of 28

determines if the contiguous blocks are sufficient for storing the processed image data, and upon a determination by the judgment section that the contiguous blocks are sufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as to preferentially allow the processed image data to be stored in the contiguous blocks.

13. (CURRENTLY ADDED) The image-processing apparatus as defined in claim 1, wherein upon a judgment by the judgment section that the empty storing area is sufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as the processed image data is stored in the empty storing area.

14. (CURRENTLY ADDED) The image-processing apparatus as defined in claim 5, wherein upon a judgment by the judgment section that the empty storing area is sufficient to store the processed image data, the image-processing control section controls the storage of the processed image data so as the processed image data is stored in the empty storing area.

15. (CURRENTLY ADDED) The image processing apparatus as defined in claim 1, wherein the processed image data is divided into predetermined block units and wherein the image-processing control section controls the storage of the processed image data so that the processed image data is transferred block unit by block unit to the storing section.

Applicant: H. Maeda
U.S.S.N.: 09/506,210
RESPONSE TO OFFICE ACTION
Page 11 of 28

16. (CURRENTLY ADDED) The image processing apparatus as defined in claim 5,
wherein the processed image data is divided into predetermined block units and wherein the image-
processing control section controls the storage of the processed image data so that the processed
image data is transferred block unit by block unit to the storing section.

PL